## Sequence Listing

(1) Name of Applicant: DNAVEC RESEARCH INC.

(2) Title of the Invention: Vectors for Treating Cancer

(3) Reference Number: D3-906PCT

(4) Application Number:

(5) Filing Date:

(6) Country where the priority application was filed and the application number of the application: Japan, No. Hei 9-223651

(7) Priority date: August 20, 1997

(8) Number of Sequences: 28

SEQ ID NO: 1:

SEQUENCE LENGTH: 28

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 1

GATCTCTCGA GCCCGGGGGT ACCGCATG

SEQ ID NO: 2:

SEQUENCE LENGTH: 20

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 2

CGGTACCCCC GGGCTCGAGA

20

28

SEQ ID NO: 3:

SEQUENCE LENGTH: 32

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 3 TCGAGGGACT TGCCTGGACT TGCCTGTCGA CG 32 SEQ ID NO: 4: SEQUENCE LENGTH: 32 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 4 GTACCGTCGA CAGGCAAGTC CAGGCAAGTC CC 32 SEQ ID NO: 5: SEQUENCE LENGTH: 46 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 5 TCCCTCGAGA CGCGTGTTTA AACCAATGCC CTGGCTCACA AATACC 46 SEQ ID NO: 6: SEQUENCE LENGTH: 45 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 6 TCCGTCGACT GGCCAGCTAG CGGCATATGT TGCCAAACTC TAAAC 45

SEQ ID NO: 7:

SEQUENCE LENGTH: 39

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

SEQUENCE LENGTH: 68

STRANDEDNESSS: single

SEQUENCE TYPE: nucleic acid

TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 7 TCCCTCGAGA CGCGTAAGCT TTATTGCGGT AGTTTATCA 39 SEQ ID NO: 8: SEQUENCE LENGTH: 39 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 8 TCCGAGCTCC GGCCGAGTAC TCTAGCCTTA AGAGCTGTA 39 SEQ ID NO: 9: SEQUENCE LENGTH: 36 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 9 TCCGAGCTCC ACGTGCTGTG CCTTCTAGTT GCCAGC 36 SEQ ID NO: 10: SEQUENCE LENGTH: 46 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 10 TCCAGATCTG TTTAAACGGC GCGCCAAAGC CCCAAAAACA GGAAGA 46 SEQ ID NO: 11:

SEQUENCE TYPE: nucleic acid

TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA	
SEQUENCE DESCRIPTION: SEQ ID NO: 11 TGAAAGCTTC GGCCGCCACC ATGCCCAAGA AGAAGCGCAA GGTGTCCAAT TTACTGACCG TACACCAA	60 68
SEQ ID NO: 12: SEQUENCE LENGTH: 33 SEQUENCE TYPE: nucleic acid	
STRANDEDNESSS: single TOPOLOGY: linear	
MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 12	
TCCGAGCTCC TAATCGCCAT CTTCCAGCAG GCG	33
SEQ ID NO: 13: SEQUENCE LENGTH: 37 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single	
TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA	
SEQUENCE DESCRIPTION: SEQ ID NO: 13 AGCTTCTAGA CAGCCAGACT GCCTTCCGGG TCACTGC	37
SEQ ID NO: 14: SEQUENCE LENGTH: 27 SEQUENCE TYPE: nucleic acid	
STRANDEDNESSS: single	
TOPOLOGY: linear  MOLECULE TYPE: other nucleic acids, synthetic DNA  SEQUENCE DESCRIPTION: SEQ ID NO. 14	
SEQUENCE DESCRIPTION: SEQ ID NO: 14 GTTCTAGACC CCATGTAATA AAAGGTG	27
SEQ ID NO: 15:	
SEQUENCE LENGTH: 55	

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 15

TCAGGTACCG GCGCGCCAGT ACTGGCCGGC CCGTTACATA ACTTACGGTA AATGG

55

33

41

SEQ ID NO: 16:

SEQUENCE LENGTH: 33

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 16
TCCGAATTCG TACAATTCCG CAGCTTTTAG AGC

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SEQ ID NO: 17:

SEQUENCE LENGTH: 41

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 17

TTGCCGCGGC CTGCAGGCAG ACATGATAAG ATACATTGAT G

SEQ ID NO: 18:

SEQUENCE LENGTH: 47

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 18

TCCGAGCTCA GTACTGGCGC GCCAAAAAAC CTCCCACACC TCCCCCT 47

SEQ ID NO: 19:

SEQUENCE LENGTH: 47

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 19

AATTCATAAC TTCGTATAGC ATACATTATA CGAAGTTATC CCGGGGC

SEQ ID NO: 20:

SEQUENCE LENGTH: 47

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 20

GGCCGCCCCG GGATAACTTC GTATAATGTA TGCTATACGA AGTTATG

47

50

47

SEQ ID NO: 21:

SEQUENCE LENGTH: 58

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 21

GGCCGCGTCG ACATAACTTC GTATAGCATA CATTATACGA AGTTATACTA GTCCTGCA 58

SEQ ID NO: 22:

SEQUENCE LENGTH: 50

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 22

GGACTAGTAT AACTTCGTAT AATGTATGCT ATACGAAGTT ATGTCGACGC

SEQ ID NO: 23:

SEQUENCE LENGTH: 35

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 23 TCCACTAGTT CATGATTGAA CAAGATGGAT TGCAC 35 SEQ ID NO: 24: SEQUENCE LENGTH: 48 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 24 TTCCGAATTC CCTGCAGGGG ATCCTCAGAA GAACTCGTCA AGAAGGCG 48 SEQ ID NO: 25: SEQUENCE LENGTH: 33 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acids, synthetic DNA SEQUENCE DESCRIPTION: SEQ ID NO: 25 33 TCCACTAGTG TTATTTTCCA CCATATTGCC GTC SEQ ID NO: 26: SEQUENCE LENGTH: 33 SEQUENCE TYPE: nucleic acid STRANDEDNESSS: single TOPOLOGY: linear

33

SEQ ID NO: 27:

SEQUENCE LENGTH: 39

SEQUENCE TYPE: nucleic acid

SEQUENCE DESCRIPTION: SEQ ID NO: 26 TCAGGATCCC CATGGCCATG GTATTATCAT CGT

MOLECULE TYPE: other nucleic acids, synthetic DNA

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 27

TGAGCCCGGG CCGCCACCAT GGCTTCGTAC CCCTGCCAT

39

SEQ ID NO: 28:

SEQUENCE LENGTH: 39

SEQUENCE TYPE: nucleic acid

STRANDEDNESSS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acids, synthetic DNA

SEQUENCE DESCRIPTION: SEQ ID NO: 28

TCCTACTAGT GCGGCCGCTC AGTTAGCCTC CCCCATCTC

39